AMENDMENTS TO THE DRAWINGS:

Sheet 1 with Figures 1-2 has been replaced with a new sheet, Figures 1-2 amended to have a Prior Art legend.

Sheet 4 has been replaced with a new sheet that adds new Figure 13.

REMARKS

The application has been amended and is believed to be in condition for allowance.

Claims 1-19 remain in this application.

A declaration in compliance with 37 CFR 1.132 is appended.

The IDS of May 31, 2006 will be resubmitted.

Drawing sheet 1 with Figures 1-2 has been replaced with a new sheet, Figures 1-2 amended to have a Prior Art legend.

Sheet 4 has been replaced with a new sheet that adds New Figure 13. This responds to the drawing objection. No new matter is entered.

The specification has been amended to add section headings and make formal amendments. The specification has been amended to refer to Figure 13.

Claims 1-13 and 17 were rejected under section 112, second paragraph as being indefinite.

These claims have been amended to remedy the stated basis of rejection.

New claim 20 comes from prior claim 3.

Withdrawal of the indefiniteness rejection is solicited.

Claim 1 has also been amended to recite that the curvature of the pulley disk contact surface (40) is, in an unloaded state, convexedly curved facing the drive belt.

Figure 5 illustrates this detail on the basis of a cross section through it as seen in the tangential direction. The contact surface 40 is provided with a curvature with an optionally variable radius of curvature R40, with a contact angle λ, defined between a tangent line 41 in a point R on the contact surface 40 and the radial direction 42, increasing as seen in the said radial direction. Therefore, the contact surfaces 40 in the transmission 1, as seen in the tangential cross section, describe a contour which can be defined as the relationship between the local contact angle λ and the transmission ratio Rs/Rp of the transmission 1. For each pulley 2, 3, the said contour is referred to as the primary contact angle contour $\lambda p(Rs/Rp)$ and the secondary contact angle contour $\lambda s(Rs/Rp)$, respectively, with the fixed and moveable discs 21, 22, 31 and 32 of a pulley 2, 3 being provided with identical contours. It is also preferable for the two pulleys 2 and 3 to be identical in form, i.e., to be provided with contact angle contours $\lambda p(Rs/Rp)$ and $\lambda s(Rs/Rp)$ which are mirror-symmetrical with respect to one another.

Rejections over BRANDSMA et al.

Claims 1, 2, and 6-19 stand rejected as anticipated by BRANDSMA et al. 2003/0144097.

Claims 3-5 are rejected as obvious over BRANDSMA et al.

Applicants respectfully disagree.

BRANDSMA et al. teaches an opposite approach to that of the present invention.

All of the Figures 4B, 5B and 6B of BRANDSMA et al. show the pulley discs in a loaded state, whereby the resulting deformation and resulting convex shape of the discs' contact surfaces has been highly exaggerated and schematized to be able to illustrate such deformation and shape.

In the unloaded state, i.e., as manufactured, the contact surfaces of the pulley discs disclosed in BRANDSMA et al. are either straight (Figs. 4A and 5A) or concavely curved (Fig. 6A).

Indeed, BRANDSMA et al. propose to compensate for the discs' deformation during operation/under load, by providing the pulley discs with a *concave* curvature as depicted in Figure 6A. Such concave shape, of course, defines a *contact angle* between the "contact surface" of the pulley discs and the "running surface" of the belt that *decreases in radially outward direction*, i.e. that is highest/largest at the location of the radially innermost position on the contact surface and that is smallest/lowest at a radially outermost position thereon. Accordingly, in relation to the curvature to be provided to the pulley discs, the teaching of BRANDSMA et al. is exactly opposite to that of the present invention!

Apart from BRANDSMA et al. relating to straight or concavely curved pulleys only, the difference in teaching with

the present invention is also confirmed by the various contact angles mentioned in the respective documents.

BRANDSMA et al. mention that the deformation of the pulley discs during operation/under load can be compensated for and thus apparently amounts to a deviation of the contact angle between 1/3 and 1/30 of a degree. In the present application, however, the contact angle is made to vary several degrees along the radial dimension of the pulley discs (see, e.g., Figs. 9 and 12 and claims 10-13).

The attached declaration further outlines the distinctions between BRANDSMA et al. and the present invention.

For all the foregoing reasons it is respectfully submitted that the claims presented are patentable. Reconsideration and allowance are requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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APPENDIX:

The Appendix includes the following item(s):

- Replacement Sheets for Figures 1-2 and 11-12 adding new Figure 13
- Declaration in compliance with 37 CFR 1.132
- Clean copy of amended claim set

Clean Copy of Amended Claim Set

1. (previously presented) A continuously variable transmission (1) for motor vehicles, comprising:

a drive belt (10) comprising substantially axially oriented running surfaces (16) arranged on either side of the drive belt (10);

a primary pulley (2) comprised of two conical pulley disks (21, 22), each pulley disk of the primary pulley including a contact surface contacting the side of the drive belt; and

a secondary pulley (3) comprised of two conical pulley disks (31, 32), each pulley disk of the primary pulley including a contact surface contacting the side of the drive belt, wherein,

the drive belt (10) is wound around the primary pulley and the second pulley contacting the respective contact surfaces of the pulley disks of the primary and second pulleys, at least when the transmission (1) is operating, the drive belt is clamped, via substantially the axially oriented running surfaces (16) i) between the two conical pulley disks (21, 22) of the primary pulley (2) with a primary clamping force (Kp) and ii)_between the two conical pulley disks (31, 32) of the secondary pulley (3) with a secondary clamping force (Ks) to transmit a supplied torque (Tp) with the aid of frictional forces from the primary pulley (2) to the secondary pulley (3),

a curvature of the contact surface (40) of at least one (43) of the pulley disks (21, 22, 31, 32), in an unloaded state,

is convexedly curved facing the drive belt (10) as seen in a cross section of said one pulley disk,

the curvature, oriented perpendicular to a tangential direction, in said cross section, defines a contact angle (λ) between a tangent line (41) on the contact surface (40) of the one pulley disk (43) and a radial direction (42),

the contact angle (λ) varies in relation to a radial position (Rp, Rs) of a contact point between the respective running surface (16) of the drive belt (10) and the contact surface (40), the contact angle (λ) being at a lowest value at the location of a radially innermost position on the contact surface (40) and the contact angle (λ) being at a highest value at a location of a radially outermost position on the contact surface (40),

a transmission ratio (Rs/Rp) of the transmission (1) is defined as the quotient between the radial position (Rs) for the secondary pulley (3) and the radial position (Rp) for the primary pulley (2), and

the contact angle (λ) being adapted in relation to said radial position (Rp, Rs) provides that at least in the largest transmission ratio (Rs/Rp), a clamping force ratio (KpKs) between the primary clamping force (Kp) and the secondary clamping force (Ks) has a value in the range between 1 and the clamping force

ratio (KpKs) in the smallest transmission ratio (Rs/Rp).

2. (previously presented) The continuously variable transmission (1) as claimed in claim 1, wherein the contact angle (λ) in relation to said radial position (Rp, Rs) provides that, in the smallest transmission ratio, the clamping force ratio (KpKs) has a value in the range between 1.8 and the clamping force ratio (KpKs) in Low.

3. (previously presented) The continuously variable transmission (1) as claimed in claim 1, wherein the contact angle (λ) being adapted in relation to said radial position (Rp, Rs) provides that in all transmission ratios (Rs/Rp) of the transmission (1), the clamping force ratio (KpKs) has a value in the range between 1.2 and 1.6.

4. (previously presented) The continuously variable transmission (1) as claimed in claim 1, wherein a safety factor (Sf) between a minimum primary or secondary clamping force (Kp; Ks) required for the transmission of the torque (Tp) supplied in the respective transmission ratio (Rs/Rp) and a desired primary or secondary clamping force (KpDV; KsDV) is approximately 1.3.

5. (previously presented) The continuously variable transmission (1) as claimed in claim 1, wherein, at least for a

constant transmission ratio (Rs/Rp), a desired secondary clamping force (KsDV) is determined by multiplying a minimum secondary clamping force (Ks) required for the transmission of the supplied torque (Tp) by a safety factor of greater than 1, and a desired primary clamping force (KpDV) is determined by multiplying said desired secondary clamping force (KsDV) by the clamping force ratio (KpKs) in said constant transmission ratio (Rs/Rp).

6. (previously presented) The continuously variable transmission (1) as claimed in [[claim 1]], wherein the contact angle (λ) in relation to said radial position (Rp, Rs) is at least substantially equal for the two pulley disks (21, 22; 31, 32) of a respective pulley (2, 3).

7. (previously presented) The continuously variable transmission (1) as claimed in claim 1, wherein a lowest value of the contact angle (λ) for the pulley disks (21, 22, 31, 32) in relation to said radial position (Rp, Rs) is at least substantially equal for the pulley disks (21, 22, 31, 32) of the two pulleys (2; 3).

8. (previously presented) The continuously variable transmission (1) as claimed in claim 1, wherein a highest value for the contact angle (λ) for the pulley disks in relation to said radial position (Rp, Rs) is higher for the pulley disks

(21, 22) of the primary pulley (2) than the corresponding value for the contact angle (λ) for the pulley disks (31, 32) of the secondary pulley (3).

9. (previously presented) The continuously variable transmission (1) as claimed in claim 1, wherein the drive belt (10) is provided with at least one set of rings (12) and a number of transverse elements (11), which can move along the set of rings (12) in the circumferential direction thereof and are provided with the running surfaces (16).

10. (previously presented) The continuously variable transmission (1) as claimed in claim 1, wherein the contact angle (λ) in relation to said radial position (Rp, Rs) corresponds for the two pulley disks (21, 22; 31, 32) of a respective pulley (2, 3), and, at least in the smallest transmission ratio (Rs/Rp) of the transmission (1), a ratio between the contact angle (λ) for the primary pulley (λp) and the contact angle (λ) for the secondary pulley (λs) satisfies the condition that:

$$1 < \frac{\tan(\lambda p)}{\tan(\lambda s)} \leq 1.6$$.

11. (previously presented) The continuously variable transmission (1) as claimed in claim 10, wherein, at least in the largest transmission ratio (Rs/Rp) of the transmission (1), the

ratio between said contact angles (λp, λs) satisfies the condition that:

$$0.6 < \frac{\tan(\lambda p)}{\tan(\lambda s)} \leq 1 .$$

12. (previously presented) The continuously variable transmission (1) as claimed in claim 10, wherein for both the primary pulley (2) and the secondary pulley (3) the lowest value for the contact angle (λ) is approximately 7 degrees.

13. (previously presented) The continuously variable transmission (1) as claimed in claim 12, wherein for the primary pulley (2) the highest value for the contact angle (λ) is approximately 10 degrees, and in for the secondary pulley (3) the highest value for the contact angle (λ) is approximately 9 degrees.

14. (previously presented) A continuously variable transmission (1) for motor vehicles, comprising:

a primary pulley (2) with two conical pulley disks (21, 22);

a secondary pulley (3) with two conical pulley disks (31, 32),

a drive belt (10) having substantially axially oriented running surfaces (16) arranged on either side of the

drive belt (10),

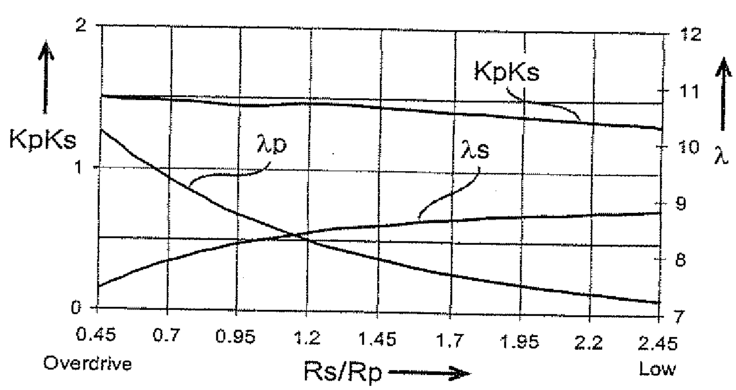
the drive belt arranged around the primary and second pulleys and, at least when the transmission (1) is operating, is clamped, via substantially the axially oriented running surfaces (16), between the two conical pulley disks (21, 22) of the primary pulley (2) with a primary clamping force (Kp) and between the two conical pulley disks (31, 32) of the secondary pulley (3) with a secondary clamping force (Ks) to transmit a supplied torque (Tp) with the aid of frictional forces from the primary pulley (2) to the secondary pulley (3),

wherein, at least when the transmission (1) is operating, a coefficient of friction between the primary pulley (2) and the drive belt (10) in relation to a radial position (Rp) of a contact point between therebetween has a lowest value at the location of a radially outermost position of said contact point.

15. (previously presented) The continuously variable transmission (1) as claimed in claim 14, wherein said coefficient of friction between the primary pulley (2) and the drive belt (10) is lower than a coefficient of friction between the secondary pulley (2) and the drive belt (10) at the location of a radially outermost position of a contact point between therebetween.

16. (previously presented) The continuously variable transmission (1) as claimed in claim 14, wherein, at least as seen in a tangential cross section, the primary pulley disks (21, 22), at the location of said radially outermost position of the contact point between the primary pulley (2) and the drive belt (10), are provided with at least one of a relatively large radius of curvature (R40) and a relatively low surface roughness.

17. (previously presented) The continuously variable transmission (1) as claimed in claim 14, wherein the contact angle (λ) for the two pulley disks (21, 22; 31, 32) of a respective pulley (2, 3) has a value which corresponds, and in that for both the primary pulley (λp) and the secondary pulley (λs) the respective contact angle (λ) in relation to the transmission ratio (Rs/Rp) of the transmission (1) at least substantially corresponds to the contour shown for this parameter as shown below:



18. (previously presented) The continuously variable transmission (1) as claimed in claim 14, wherein the clamping force ratio (KpKs) in relation to the transmission ratio (Rs/Rp) of the transmission (1) has an approximately constant value.

19. (previously presented) The continuously variable transmission (1) as claimed in claim 1, in combination with a motor vehicle having an engine and a load that is to be driven, the transmission located between the engine and the load, so that a power which is to be generated by the engine will be transmitted by the drive belt (10) from the primary pulley (2) to the secondary pulley (3) and output to the load by the secondary pulley (3).

20. (previously presented) The continuously variable transmission (1) as claimed in claim 1, wherein the contact angle (λ) being adapted in relation to said radial position (Rp, Rs) provides that in all transmission ratios (Rs/Rp) of the transmission (1), the clamping force ratio (KpKs) has a value in the range between 1.3 and 1.5.